TRIGONOMETRÍA

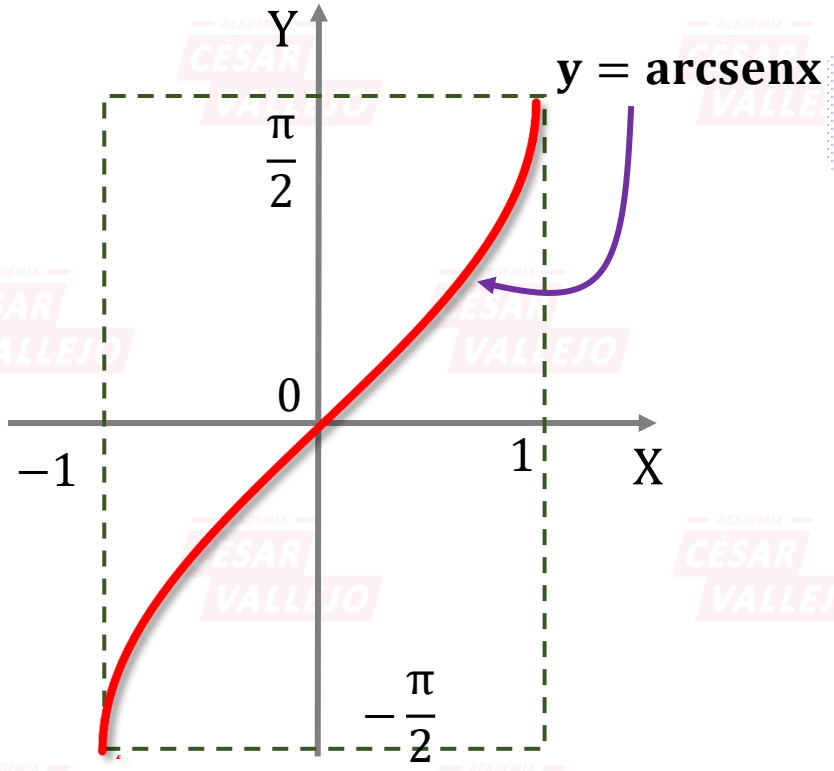
CICLO REPASO UNI

Funciones trigonométricas inversas

CICLO REPASO UNI

ACADEMIA CÉSAR VALLEJO

Función arcoseno



$$\arcsen x + \arccos x = \frac{\pi}{2}$$

$$\arcsen(-x) = -\arcsen(x)$$

$$\arccos(-x) = \pi - \arccos(x)$$

$$\arcsen(\sen x) = x \leftrightarrow x \in \left[-\frac{\pi}{2}; \frac{\pi}{2}\right]$$

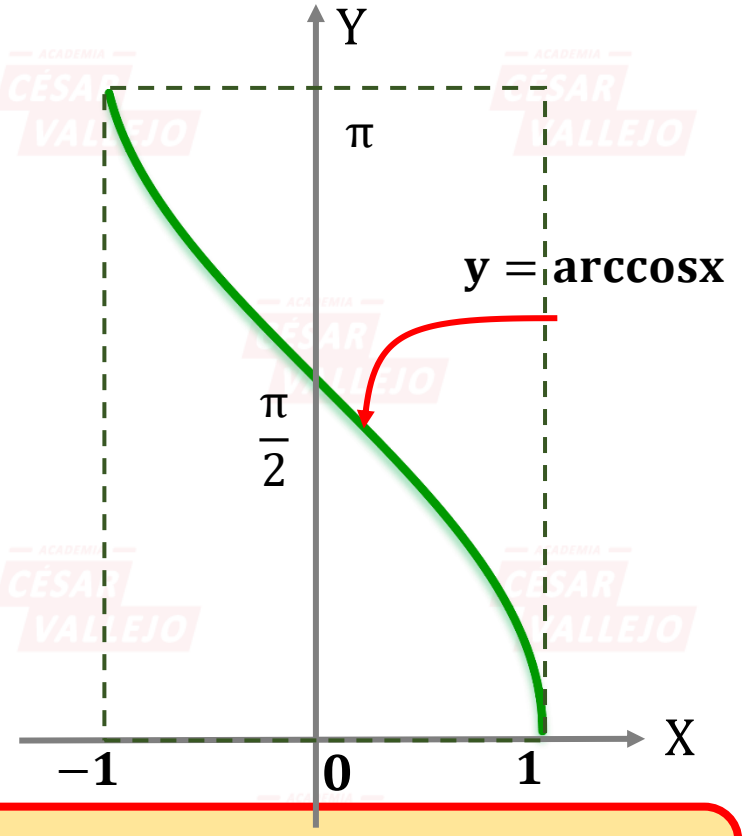
$$\arccos(\cos x) = x \leftrightarrow x \in [0; \pi]$$

Dominio: $[-1; 1]$ **Rango:** $\left[-\frac{\pi}{2}; \frac{\pi}{2}\right]$

Es una función creciente

Es una función impar

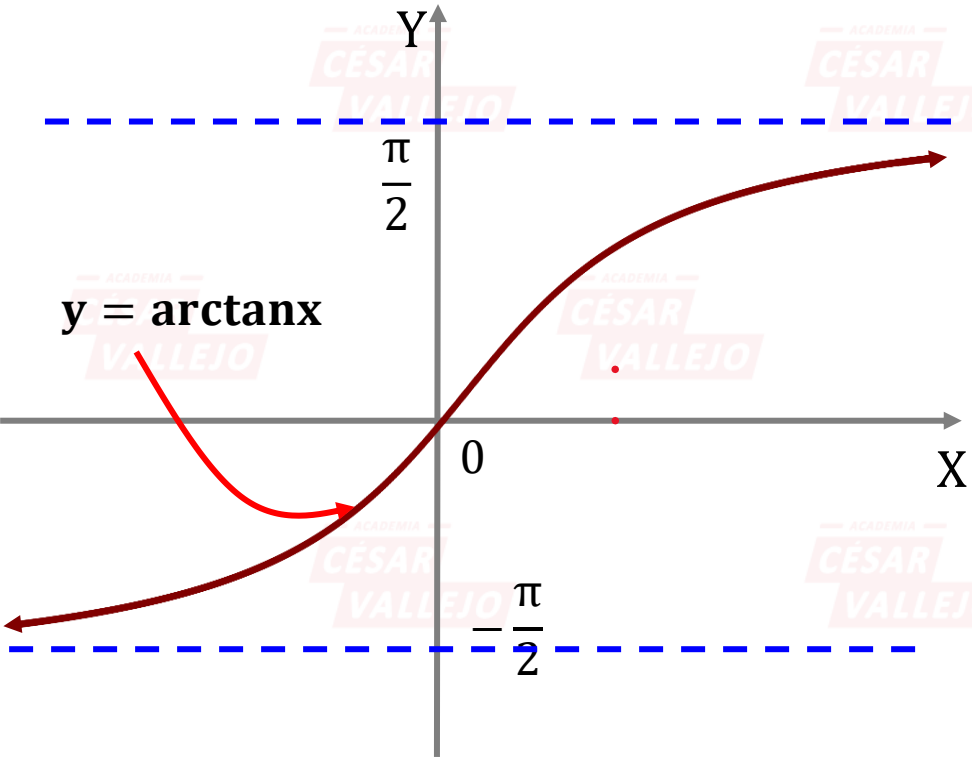
Función arcocoseno



Dominio: $[-1; 1]$ **Rango:** $[0; \pi]$

Es una función decreciente

Función arcotangente



$$arctanx + arccotx = \frac{\pi}{2}$$

$$arctan(-x) = -arctan(x)$$

$$arcot(-x) = \pi - arccot(x)$$

$$arctan(tanx) = x \leftrightarrow x \in \left\langle -\frac{\pi}{2}; \frac{\pi}{2} \right\rangle$$

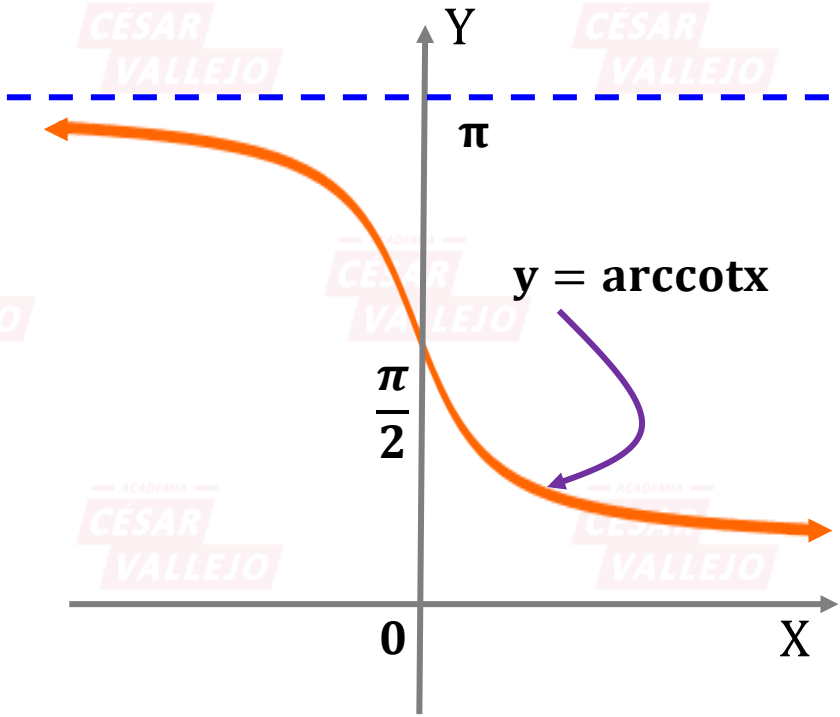
$$arccot(cotx) = x \leftrightarrow x \in \langle 0; \pi \rangle$$

Dominio: $\mathbb{R}$ **Rango:** $\left\langle -\frac{\pi}{2}; \frac{\pi}{2} \right\rangle$

Es una función creciente

Es una función impar

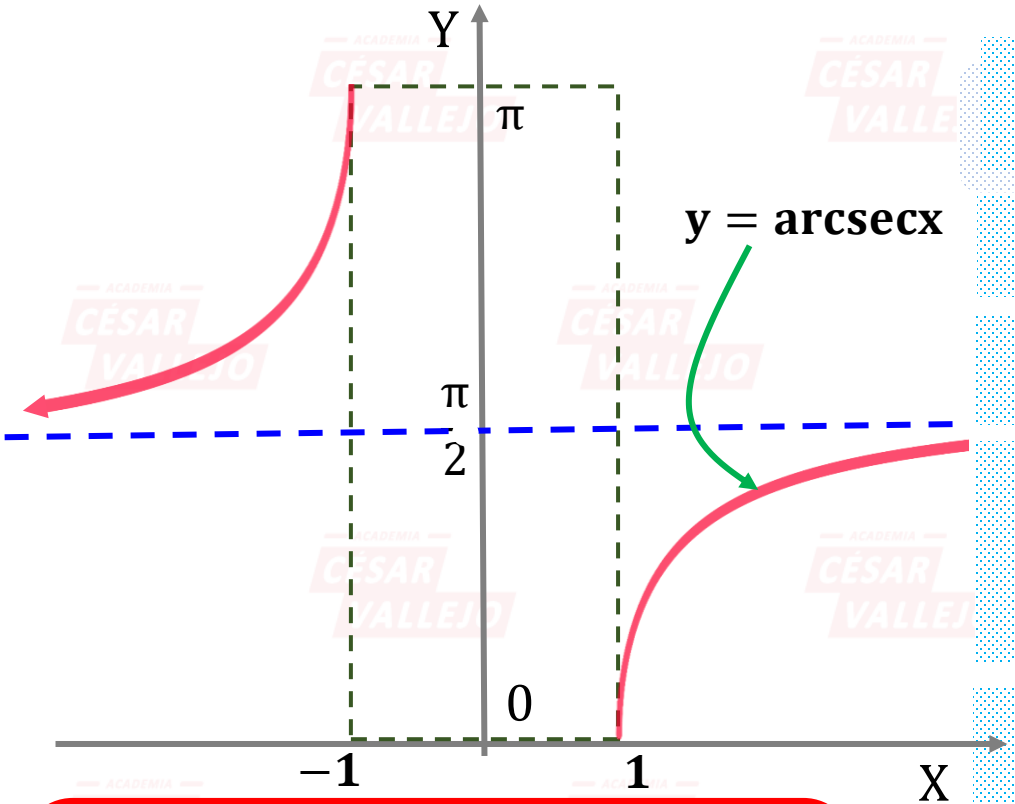
Función arcocotangente



Dominio: $\mathbb{R}$ **Rango:** $\langle 0; \pi \rangle$

Es una función decreciente

Función arcosecante



$$\text{arcsec}x + \text{arccsc}x = \frac{\pi}{2}$$

$$\text{arccsc}(-x) = -\text{arccsc}(x)$$

$$\text{arcsec}(-x) = \pi - \text{arcsec}(x)$$

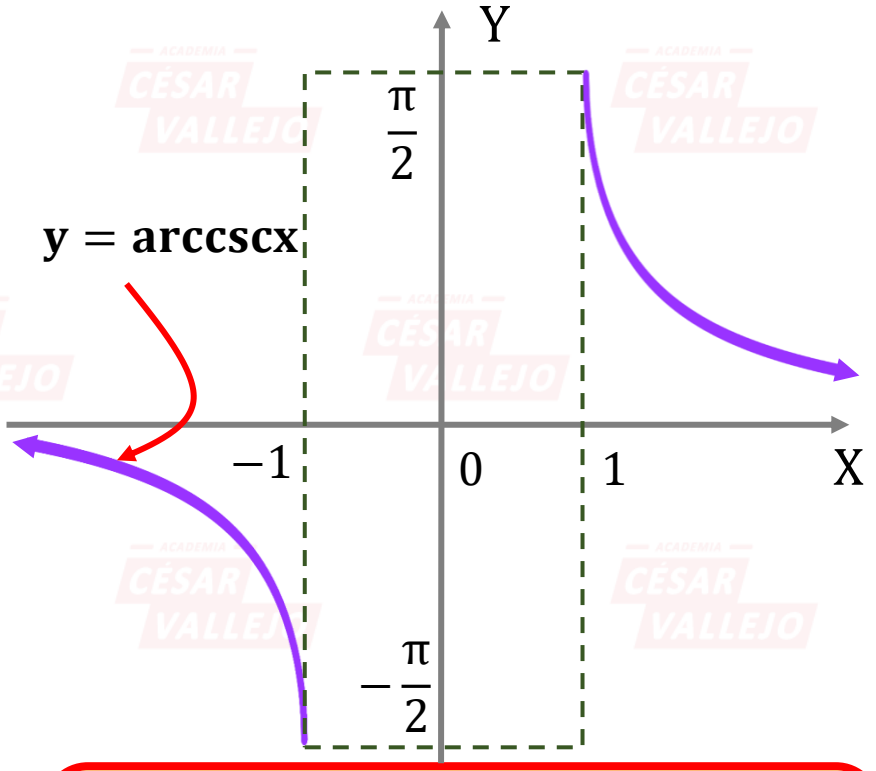
$$\text{arccsc}(\csc x) = x \leftrightarrow x \in \left[-\frac{\pi}{2}; \frac{\pi}{2}\right] - \{0\}$$

$$\text{arcsec}(\sec x) = x \leftrightarrow x \in [0; \pi] - \left\{\frac{\pi}{2}\right\}$$

Dominio: $\mathbb{R} - \langle -1; 1 \rangle$

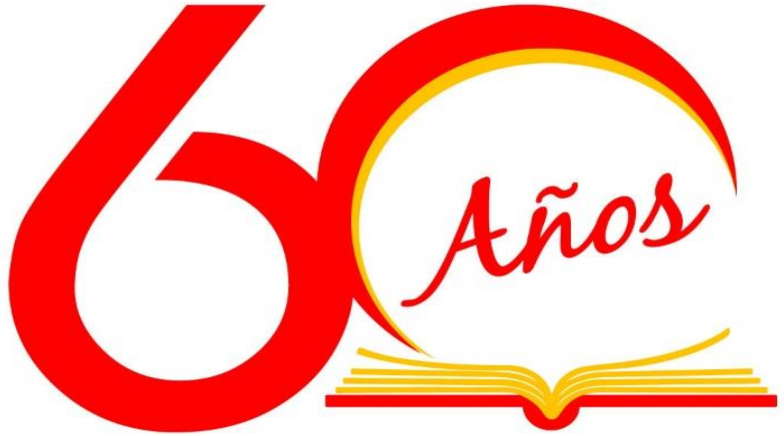
Rango: $[0\,;\pi\,] - \left\{\frac{\pi}{2}\right\}$

Función arcocosecante



Dominio: $\mathbb{R} - \langle -1; 1 \rangle$

Rango: $\left[-\frac{\pi}{2}; \frac{\pi}{2}\right] - \{0\}$



¡Gracias!